SCIENCE 8 NAME

EGG CAR ASSESSMENT PERIOD

DATE

(PS1B) If the ramp’s surface was thick carpet, explain how would that affect the speed of the car.

(PS1C) When the car hits the table, are the forces balanced or unbalanced? How do you know?

(PS1D) If there was a foam pad on the table, would the car change speeds (decelerate) faster than without the foam?

(INQE) Why did we choose to use an egg as a model in this experiment? How is the egg similar to a human? What are some weaknesses? Can you think of a better option?

**Directions**: Complete the table below. (PS1A)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Car** | **Distance** | **Time** | **Speed (m/s)** | **Survived?** |
| A | 1.5 m | 6.2s |  | Yes |
| B | 1.5 m | 3.1s |  | Yes |
| C | 1.5 m | 1.4s |  | No |
| D | 1.5 m | 4.3s |  | Yes |

Which car above most successfully met the project criteria of speed and safety?  Make a **claim** and support it with **evidence** and **reasoning**. (INQF – MS-ETS1-2)

**Claim** (a sentence that directly responds to the question).

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**Evidence** (relevant data that supports your claim).

**Reasoning** (Explain why the evidence supports the claim).

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Choose another vehicle and explain why it doesn’t meet the criteria. (MS-ETS1-1)

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| --- | --- | --- | --- | --- |
|  | 4 | 3 | 2 | 1 |
| Claim |  | Claim is accurate and relevant to question. | Claim is accurate or relevant to question, but not both. | Claim is inaccurate or irrelevant |
| Evidence |  | Provided data accurately supports the claim. Only relevant data is included | Included irrelevant data. | No quantitative data included |
| PS1A |  | Correctly calculated speed | Simple computational errors | Does not demonstrate understanding of calculating speed |
| Reasoning  MS-ETS1-1 Criteria | Tie in additional science content (decel/force)  Rebuttal | Identifies high speed and survival as successful | Provides insufficient reasoning to show understanding of criteria | No criteria |